

ABSTRACT

A strong, high density foam glass tile having a small pore size which can be used as a facade on both exterior and interior building walls. The foam glass tile of the present invention is strong enough that it can also be used as a structural member for a building. The foam glass tiles are very strong, and have a compression strength of 6000 psi (lb./sq. in.) or greater, and more particularly of 8000 lb./sq. in. or greater, and even more particularly of 10,000 lb./sq. in. or greater, and even more particularly of 12,000 lb./sq. in. or greater, and even more particularly of 14,000 lb./sq. in. or greater. These foam glass tiles will absorb more energy from an explosion, withstand higher heat and wind loading and other mechanical forces. The tiles of the present invention may have an average pore size of 1.0 mm or less, and preferably .7 mm or less, and more preferably .6 mm or less, and even more preferably .5 mm or less, and even more preferably .4 mm or less, and even more preferably .3 mm or less. The density of the foam glass tile of the present invention is increased from the commercially recommended density of 9.5 lb./cu. ft. to have a higher density of between 30-100 lb./cu. ft., and more particularly greater than 40 lb./cu. ft., and even more particularly greater than 50 lb./cu. ft., and even more particularly greater than 60 lb./cu. ft. The weight of the foam glass tile of the present invention is over 10 lbs., and more particularly over 20 lbs., and even more particularly over 30 lbs., and more particularly 35 lbs. or greater, and even more particularly 40 lbs. or greater, and even more particularly 50 lbs. or greater, and even more particularly 65 lbs. or greater, and even more

particularly 100 lbs. or greater. The tile of the present invention may also have a closed pore structure.